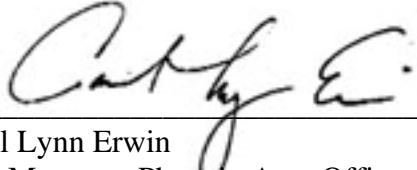


United States Department of the Interior  
Bureau of Reclamation  
Lower Colorado Region  
Phoenix Area Office

FINDING OF NO SIGNIFICANT IMPACT

Native Fish Restoration  
in Bonita Creek

Gila Box Riparian National Conservation Area  
Graham County, Arizona

Approved:   
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Bureau of Reclamation

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FONSI No. 07-03

**INTRODUCTION**

In accordance with the National Environmental Policy Act of 1969 (Public Law 91-190, as amended), the Bureau of Reclamation (Reclamation) and the Bureau of Land Management (BLM) issued a draft environmental assessment (DEA) in February 2007, titled “*Native Fish Restoration in Bonita Creek*,”<sup>1</sup> to disclose the potential environmental impacts resulting from construction of a fish barrier, removal of nonnative fishes with the piscicide antimycin A or rotenone, and restoration of imperiled native fishes in Bonita Creek. The DEA also addressed implementation of the City of Safford-BLM Memorandum of Understanding (MOU) and an associated 10-year plan which will govern the relationship between BLM and Safford regarding future operation of municipal water supply facilities in lower Bonita Creek.

The Proposed Action is intended to improve the recovery status of five federally-listed fish species and maintain a healthy native fishery in Bonita Creek consistent with existing uses and BLM’s management of the Gila Box Riparian National Conservation Area (RNCA) in Graham County, Arizona.

## **BACKGROUND**

In 1994, the U.S. Fish and Wildlife Service (FWS) issued a final biological opinion (Opinion) on the transportation and delivery of Central Arizona Project (CAP) water to the Gila River basin and its potential to introduce and spread nonnative aquatic species. The Opinion concluded that the transfer of nonnative aquatic species through the CAP would jeopardize the continued existence of several federally listed species of native Gila River basin fishes. The Opinion also identified a reasonable and prudent alternative to avoid jeopardy that included construction of several fish barriers. In 2001, the FWS in consultation with Reclamation revised this Opinion to include construction of a fish barrier in Bonita Creek as a required conservation measure.

The RNCA is administered by BLM in accordance with the 1998 Gila Box Management Plan (Gila Box Plan). A principal resource management objective of the Gila Box Plan is to maintain or enhance populations of threatened, endangered, and other priority species. Management actions prescribed in the Gila Box Plan include reintroduction of specified native fishes and construction of a fish barrier in Bonita Creek. The Gila Box Plan also encourages coordination and cooperation between BLM and Safford to minimize ongoing and potential future impacts of water facility operation and maintenance on the resources of Bonita Creek.

## **ALTERNATIVES CONSIDERED**

Reclamation and BLM considered No Action and the Proposed Action alternatives in the DEA. The Proposed Action was developed by Reclamation and BLM to meet the objectives of the 2001 Opinion and the Gila Box Plan.

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<sup>1</sup> The full title is Draft Environmental Assessment, Native Fish Restoration in Bonita Creek, Gila Box Riparian National Conservation Area/Graham County, Arizona.

Under the No Action alternative, Reclamation and BLM would not implement the native fish restoration project or the MOU. The City of Safford (City) would continue to operate, maintain, and possibly upgrade the Bonita water system under the 1986 Cooperative Management Agreement and existing rights-of-way. No action by Reclamation and BLM would result in continued disruption of natural ecological processes in lower Bonita Creek by nonnative fishes. The native fish community in upper Bonita Creek could also be jeopardized if future flood events damage an existing dike and provide sufficient connectivity of flow through an intermittent reach at the City's infiltration gallery to allow nonnative fishes to move into the upper system.

Under the Proposed Action, Reclamation will construct a fish barrier in Bonita Creek on BLM land, approximately 1.3 miles upstream from the Gila River. After the barrier is constructed, the Arizona Game and Fish Department will renovate a 1.7-mile perennial segment of Bonita Creek between the barrier and an existing water facility dike. Stream renovation will consist of the following elements: (1) native fish salvage, (2) application of the piscicide rotenone or antimycin A, (3) piscicide neutralization, (4) post-treatment monitoring, and (5) return of salvaged native fishes, including Gila chub. Following renovation, loach minnow, spikedace, desert pupfish, and Gila topminnow will be restored to lower and upper Bonita Creek in the RNCA. The BLM will execute the MOU and 10-year plan concurrent with native fish restoration actions.

Several alternative actions were considered and eliminated from detailed analysis because they did not fully meet the purpose and need for the project. These alternatives consisted of the following:

1. Alternative barrier sites.
2. Alternative stream renovation methods.
3. Stream renovation without a barrier.
4. Barrier without stream renovation.

## **CONSULTATION, COORDINATION, AND PUBLIC INVOLVEMENT**

The 30-day public scoping period for this project began on June 9, 2005. Reclamation posted a scoping notice on its Phoenix Area Office website and mailed scoping information to more than 160 potentially interested agencies, organizations, and individuals. Information on the project was also included in the July 2005 monthly utility billing mailed to municipal water customers in the Safford valley. A public scoping meeting was held at the Graham County General Services building in Safford on July 14, 2005. Thirty-five people attended the Safford meeting. Twenty-two letters of comment were received; relevant issues identified in those letters were addressed in the DEA.

The DEA was posted on the Phoenix Area Office website and mailed to more than 170 entities for a 30-day public review and comment period on February 21, 2007. Two organizations submitted comments on the DEA. Both organizations expressed general support for the project.

Concurrent with public issuance of the DEA, Reclamation and BLM consulted with FWS under Section 7(a)(2) of the Endangered Species Act (ESA) of 1973 (Public Law 93-205, as amended). The possible effects to listed species resulting from implementation of the proposed action were addressed in a biological assessment prepared by Reclamation and BLM and submitted to FWS on February 2, 2007. The biological assessment concluded “no effect” to the southwestern willow flycatcher; “may affect not likely to adversely affect” the bald eagle; and “may affect will likely adversely affect” the Gila chub, loach minnow, spinedace, desert pupfish, and Gila topminnow. On June 28, 2007, the FWS issued its biological opinion on the effects of the proposed action on federally listed species. The FWS concurred with the effects determination of the biological assessment and required Reclamation and BLM to implement the following reasonable and prudent measures (RPM) and associated terms and conditions to minimize incidental take of listed fishes.

RPM 1. Conduct all proposed actions in a manner that will minimize direct mortality of listed fish species. The following terms and conditions will be implemented by BLM and Reclamation:

1. To the extent practicable, all activities in the stream channel will be conducted outside the reproductive season of the five listed fish species. This includes construction and barrier maintenance activities, and water-use facilities maintenance, but does not include monitoring. If activities associated with construction and maintenance of the barrier cannot be conducted outside the breeding season of listed fish species, Reclamation will coordinate with FWS to minimize effects to listed species. If activities associated with maintenance of water use cannot be conducted outside the breeding season of listed fish species, BLM will coordinate with the City of Safford to minimize effects to listed species.
2. An appropriate spill response kit for cleaning up accidental releases of petroleum products (or other appropriate substances) will be available at the work site whenever work is ongoing, and at least one person present shall have training in use of that kit.

RPM 2. Conduct all proposed actions in a manner that will minimize loss and alteration of habitat (including the aquatic faunal community) of listed fish species. The following term and condition will be implemented by Reclamation:

1. The methodology for recontouring the channel and floodplain following barrier construction will be discussed with BLM and FWS prior to implementation.

RPM 3. Monitor the effects of the Proposed Action on the lower Bonita Creek fish communities and habitat to document levels of incidental take, and report the findings to the FWS.

Reclamation shall be responsible for this monitoring for barrier construction and maintenance. The BLM shall be responsible for other activities under the Proposed Action. The following terms and conditions will be implemented by BLM and Reclamation:

1. Reclamation or BLM will have available to advise and assist in the application of the terms and conditions a qualified fisheries biologist as funding allows.
2. A written report will be submitted by the BLM to the FWS annually documenting Bonita Creek activities for the year that resulted in documented take. Reclamation will provide information to BLM for this report regarding activities related to barrier construction and maintenance. The report will include a discussion of compliance with the above terms and conditions and will be due March 15.

RPM 4. Minimize the loss of fish habitat due to fire suppression and prescribed fire use. The following term and condition will be implemented by BLM:

1. Apply the reasonable and prudent measures for Gila chub, as well as the reporting requirements, from the BLM Land Use Plan (LUP) Amendment Biological Opinion to any new listed fish species established in Bonita Creek.

In addition, BLM will apply RPMs and terms and conditions necessary and appropriate to minimize take listed in the Safford/Tucson Grazing Biological Opinion, Gila Box RNCA Biological Opinion, and BLM LUP Amendment Biological Opinion to Gila chub in Bonita Creek.

## **SUMMARY OF DEA REVIEW COMMENTS AND RECLAMATION'S RESPONSES**

1. Comment: The Arizona Chapter of the American Fisheries Society recommended use of a newly registered liquid formulation of rotenone known as CFT Legumine™, implementation of a public information program to deter people from moving nonnative fish into the renovated segment of stream, and BLM's acquisition of an instream flow right to protect the existing baseflow in the lower 3 miles of Bonita Creek.

Response: The preferred piscicide for the Bonita Creek treatment is antimycin A. CFT Legumine™ will be used if sufficient stocks of this new formulation are available, should the agencies decide to use rotenone in lieu of antimycin.

The BLM Safford office has implemented a visitor information program for the RNCA through the Gila Box Map and Brochure, development of a watchable wildlife interpretation station, community ranger presentations, and on-site signing. Currently, BLM plans to install

informational signing on the Bull Gap Road and Bonita Creek Road informing visitors of the fish barrier, its purpose, and various methods used to protect the native fish community.

The BLM Safford office has applied for an instream flow water right for Bonita Creek through the Arizona Department of Water Resources. BLM is presently waiting for a protest on the application to be resolved.

2. Moyes Storey Law Offices commented on the importance of Bonita Creek to the City's water supply and vested water rights, the benefits of the project in protecting the water supply and the natural resources of Bonita Creek Canyon, the unlikely possibility that Safford's full diversion of its water right will diminish surface flows in Bonita Creek, and the need for the State and Federal agencies to closely coordinate the proposed native fish restoration activities with Safford. Moyes Storey also noted that the diesel fuel tank and spill containment for the City's backup well generator are located on a canyon bench, outside the area that would be affected by all but a catastrophic flood.

Response: Reclamation acknowledges the points raised by the commenter. As noted in the DEA, Reclamation and BLM believe any substantial reduction of alluvial flows by additional diversions into Safford's water system may reduce surface flow and increase intermittency in portions of lower Bonita Creek. The agencies would closely coordinate implementation of the native fish restoration project with Safford's water utility department.

The public comments did not warrant revision of the EA. Therefore, the DEA is considered final and will not be reissued as a final EA.

## **MAJOR CONSIDERATIONS**

The following issues that were addressed in the DEA have been taken into consideration in Reclamation's deliberation whether a Finding of No Significant Impact is appropriate, or an environmental impact statement should be prepared.

1. The Proposed Action is consistent with the direction and objectives of the 2001 Opinion and the Gila Box Plan.

2. Implementation of the native fish restoration project or the MOU will not significantly impact water resources. Localized and minor increases in stream turbidity attributable to fish barrier construction will be limited to a 4-month period. No substantial effect on stream dynamics or sediment transport will result from operation of the barrier. Construction of the barrier and application of the piscicide (either antimycin A or rotenone) will not affect the quality or quantity of surface water or municipal drinking water supplies. Coordination between the City and BLM in accordance with the MOU/10-year plan is expected to minimize potential stream impacts from operation, maintenance, and future capacity upgrade of municipal water system facilities.

3. Effects to aquatic biota will be short term and limited to the 1.7-mile treatment area. Application of the piscicide has the potential to temporarily reduce the abundance of certain groups of aquatic macroinvertebrates in the 1.7-mile treatment area, but long-term effects are expected to be minimal in regard to number, biomass, and diversity. Possible minor effects to other nontarget aquatic species will be limited to the treatment area. A potassium permanganate or sodium permanganate drip station will be used to detoxify piscicide-treated water before it passes downstream of the fish barrier. Dilution combined with the oxidation caused by sediment and organic material in the stream will rapidly detoxify all piscicide residues within the treatment area. Degradation byproducts of the piscicide and permanganate compounds will have a negligible effect on the environment.
4. Effects of the native fish restoration project on terrestrial biota are minor. The project will have limited and discountable impacts on less than 2.6 acres of upland and riparian habitat. Human activities associated with construction and stream renovation will not result in substantial disturbances to terrestrial wildlife.
5. The project will not significantly impact threatened, endangered, or candidate species. A biological opinion issued by FWS concluded that the proposed action is not likely to jeopardize the continued existence of listed species.
6. Construction of the barrier has received water quality certification and permit coverage under Clean Water Act Sections 401, 402, and 404. The terms and conditions of these permits/certifications will be implemented during the project.
7. Native fish restoration activities will not affect significant cultural resources. Reclamation conducted a Class III (intensive) archaeological inventory and found no cultural resources in the area of potential effect. The State Historic Preservation Office concurred with Reclamation's no effect determination. The project will not affect Traditional Cultural Properties.
8. Effects to recreation and visual quality within the project area will be low. Fishing recreation is light, and removal of the nonnative sport fishery will have a minor effect on the angling public. The barrier will be colored to visually conform to surrounding terrain.
9. Total direct and indirect impact to soils, including sediment impounded by the barrier, is limited to no more than 2.6 acres. Exposed bedrock and rocky substrates at the barrier site and along the stream banks will limit erosion potential. Erosion prevention measures will be utilized where appropriate.
10. Temporary and highly localized air emissions from construction will have a minor effect on air quality. The project area is not located within a Class 1 airshed or nonattainment area.
11. There are no known or expected adverse effects to public health, safety, or populations defined by Executive Order 12898 (Environmental Justice).

12. Indian trust assets will not be adversely affected.

13. The mitigation and monitoring requirements identified in the DEA will be implemented by Reclamation and BLM.

### **FINDING OF NO SIGNIFICANT IMPACT**

Based upon a review of public comments, consideration of the impacts presented in the DEA, and ESA Section 7 consultation findings and mitigation, Reclamation has determined the Proposed Action will not significantly impact the environment and that preparation of an environmental impact statement is not warranted.

Documents related to this action are listed below:

Bureau of Land Management. 1998. Gila Box management plan, environmental assessment, and decision record. Safford Field Office.

Bureau of Reclamation. 2007. Biological assessment for native fish restoration in Bonita Creek. Phoenix Area Office, Phoenix, Arizona.

Bureau of Reclamation. 2007. Draft environmental assessment for native fish restoration in Bonita Creek. Phoenix Area Office, Phoenix, Arizona.

U.S. Fish and Wildlife Service. 2001. Revised biological opinion on transportation and delivery of Central Arizona Project water to the Gila River basin (Hassayampa, Agua Fria, Salt, Verde, San Pedro, middle and upper Gila rivers and associated tributaries) in Arizona and New Mexico and its potential to introduce and spread nonnative aquatic species. Arizona Ecological Services Office, Phoenix, Arizona.

U.S. Fish and Wildlife Service. 2007. Biological opinion for restoration of native fishes in lower Bonita Creek and Implementation of a Memorandum of Understanding (MOU) and 10-Year Operation Plan between the Bureau of Land Management (BLM) and the City of Safford. Arizona Ecological Services Office, Phoenix, Arizona.